B. Cultivation Equipment and Tillage

Of the implements observed in Malta, the traditional types of plough, hoe, sickle and harrow are of the same genera as those to be generally found in the Mediterranean region (Fig. 140).

Ploughs are of the *Aratrum* or *Ard* type, steel tipped wooden wedges, devoid of cutting edges and having very restricted powers of furrow making or inversion - *moħriet*. None of those observed had lateral 'ears' or 'wings' but apparently ards thus equipped are occasionally used. There are various sub-types with differing arrangements of beam, body and handle but no constant rational relationship between these sub-types and local environments could be observed. Prices range upwards of £4 10s. 0d. Iron or steel tips for the body cost about £1. One interesting modification of the plough is manufactured at Żurrieq. On top of the basic beam and body is fitted a movable double mouldboard of which either or both breasts can be brought into operation at any one time. Ridging and left and right furrow inversion are therefore made possible. For those areas where furrow inversion is practicable such a cheap, light multi-purpose implement would be very valuable, and the development of such improvements might well be encouraged by official approbation.

Hoes are manufactured in four main types. The heavy spade type, the *Żappuna*, is generally used for soil trenching in preparation for manuring. The effort involved tends to restrict its use. The small, single tined, wedge-shaped hoe, the *Mgħażqa* or *Lexxuna*, is a general purpose implement that is replaced under damp and cohesive soil conditions by a forked, two-tined variety, the *Kroxun*. A three-tined hoe is often used, together with the ard, for potato lifting. In general, each cultivator possesses a selection of different types of hoe, necessitated by the variety of manual operations he usually has to perform and made possible by the reasonable prices of the implements (prices range from about 16s. for the single-tine, to 18s. to £1 for the spade hoe).

The sickle in general use is a small, smooth-edged type costing about 12s. 6d. The small number of sickle types observed may result from the widespread practice of pulling rather than cutting green fodder. Traditional harrows are almost invariably of the Mediterranean and Asiatic type, harrows cum levellers and seed coverers. Those observed were triangular and stone weighted. When manufactured for the purpose they were usually constructed of ash and had removable tines. Without metal tines, the cost is about 50s.

These implements, of which illustrated examples are given (Fig.140), have already to some extent been displaced by imported newer types. Most farmers who possess fields which are at all accessible to tractors now periodically hire contractors to plough the land with mouldboard or disc ploughs and even, in some areas, with deep digger-ploughs. Where plots are small or the terrain difficult, then rotary cultivators are hired or purchased. These latter machines, in spite of their relatively high cost - usually over £200 in Malta - are amazingly popular and are more and more replacing the *ard* and the hoe. The reasons for, and implications of this popularity are examined below.

The spade proper is hardly ever used, and its absence is associated with the reasons for the survival of the *ard* plough. Small, light, flexible, metal harrows are to be found. Entirely imported, their only advantages are their flexibility on rough ground and ease of draught. They are, on the other hand, more easily damaged and more difficult to repair than their wooden prototypes. Other equipment includes a great range of fixed and movable adjuncts to farming, all but one class of which are constructed rurally from local materials. The exceptional group is that connected with irrigation and includes windpumps and small diesel engines. Threshing and winnowing, traditional style, needs no more than a rock or *lorbe* (beaten earth) floor and asses or horses for trampling, baskets constructed of local cane, and simple wooden winnowing forks. Of recent years, centralised threshing by contractors' machines has almost entirely displaced the older method in all but the more remote western regions. Canes, grown in slightly marshy conditions in wied floors, provide the raw material for wind breaks, covered forcing beds, crop supports, etc.

*159 241 311 The larger pieces of ground are put to potatoes, tomatoes, artichokes (qaqoċċ), marrows (qargha baghli), and a variety of vegetables. Fig, pomegranate and other trees fill the corners and edges of fields and a tomato seed-bed and a hen-house also manage to find space in odd corners. Two machine-driven pumps and a few tiny storage and shelter rooms complete the scene. The block of fields is in a small sheltered valley on the east coast of the Island and contains clay soils tending to be heavy, especially in wet weather.

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*159 241 433 434 829 [464] Pietru's irrigable fields are clearly the focus of his interest and attention. He observes that they bring in a greater profit per man/day of effort than do the dry fields which he prefers to leave to the wife and children to cultivate on a more casual basis. Nevertheless Pietru is not able to make a profitable concern of his farm despite his own heavy working schedule and the full-time assistance of at least two teenage children. In fact he is poor enough to qualify for C.A.R.E.[27] food distributions. He is however content with farming as an occupation and critical only of the lack of adequate remuneration. His attitutde is to 'make the most' of his farm within current limitations. He was a founder member of a C.A.R.E. sponsored tractor co-operative (Section 2) although he admits that when the project was first suggested he was opposed to it on the grounds of rather having the money than letting the Government get it. This belief that the Government is behind everything is characteristic (Section 4). C.A.R.E. is of course an independent organization distributing American surplus food and equipment.

[474]

*159 178 241 Thus Pietru's son who works full-time with his father is faced with his father's industry and enthusiasm for farming on the one hand but he can see for himself the apparent impossibility of achieving anything above low living standards. Whether he will join the trek away from farming is not yet clear. His educational standard is lower than is the case among many of his generation and it may be that he will have difficulty in finding employment outside farming.

If Pietru can improve the efficiency and profitabily of his farm (by using better suited crops, new methods and new equipment with Government financial and advisory assistance) his son might be pursuaded to stay in it. The problem of Maltese farming today is that there are very few young men in the farming industry who show as much inclination to stay on the land. The Government has been keen to assist the full-time farmer with loans and other help in an effort to encourage him to stay on the land and to develop agriculture to the full but it has done comparatively little for the young men in farming who are, in the long term view at least, the more important. If they cannot be induced to stay in farming the industry would appear to be doomed.

[426] [654]

CASE XI : Summary.

(An arable farmer mainly concerned with irrigated produce.)

*159 473 429 **A. Land.**

(i) 14 tmien irrigated land in single block of five fields in Mellieha District. 2 tmien freehold.
(ii) c.8 tmien dry land in single block of 3 fields in Qawra District.
(iii) 45 tmien in single block (of which 37 wasteland) in Bajda Ridge area.
(iv) c.6 tmien in 21 scattered field plots in Marfa.

These lands lie on the periphery of a triangle with sides measuring 4½ miles X 2 X 2 miles. Leased land is held in a variety of ways e.g. some is held on an annual lease at a rate of 15/- a tomna, other is held in emphyteusis from the Government. Of the latter, a composition fee of £200 replaced an annual rental for the last 45 years of a 99 year lease for 45 tmien. For the rest a peppercorn rent of c.2/- a tmien per annum.

*159 241 **B. Utilisation.** With parcels of land so dispersed and so variable in quality great variations in land use may be observed.

(i) The irrigated land carries potatoes, tomatoes, artichokes, a variety of pumpkins and marrows and many other types of vegetables. Tree crops are raised on the plot boundaries. Crop list: Potatoes, Tomatoes, Artichokes, Cucumbers, Marrows, Pumpkins and Water Melons. Bulbs, Black and White Vetches, Turnips, Vines, Celery, Endives, Onions, Maize, Kohl Rabi, Carrots, Garlic, Figs, Pomegranates, Apricots and Peaches.
(ii) The unirrigated land ranges from patch cultivation of cereals, beans and peaches on Bajda Ridge to vines, cereals and vetches in the other districts. These parcels get only c.60 man-days work each year. This land although neglected is held, partly because of the low-rent emphyteutical leases, partly to supply small amounts of fodder and forages for the few livestock.

*159 231 **C. Livestock.** During 1957/1958 2 heifer calves. Cattle are only kept for rearing between ages of c.3 and c.18 months, and for supplying dung. 4 goats (2 ewes and 2 kids) and 3 sheep kept for supplying domestic milk and cheese needs. No work animals ('bejjem tax-xoghol').

*159 [473] [435] [454] ●[406] **D. Capital.**

- 2 tmien freehold irrigated land valued at £200 and freehold house in the village.
- No liquid reserves other than petty cash, according to statement made to C.A.R.E. Estimated possible total less than £100.
- Equipment. No machinery other than local tools and a fixed diesel water-pump. Not averse to mechanization but suspicious of credit terms.

E. Labour.

[464] - Family Labour of one adult son and occasional work from wife and from four other children. Mutual aid arrangement with brother-in-law.

[474] [241] - A member of a C.A.R.E. implement co-operative (Section 2) which entitles him to favourable terms for tractor-ploving: shallow-plowing at 10s per tomna and deep-plowing at 20s per tomna. This represents a saving of 5s per tomna in return for a deposit to the Co-operative of £2.

[464] - Rarely hires labour.

[461] - An analysis of the daily work schedule based on an original record kept by the farmer's daughter: